

**WHAT IS CLAIMED IS:**

1. A system for generating a color corrected image, comprising:  
a setup engine to receive and parse geometric primitives and associated rendering commands;  
a rendering engine to generate graphics data based upon the geometric primitives and associated rendering commands; and  
a color-blind analyzer to analyze graphics data generated by the rendering engine and modify selected graphics data into color corrected data suitable for a visually challenged viewer, wherein the rendering engine renders the color corrected data into a color corrected image for further processing and display.
2. The system of claim 1 wherein the color corrected data comprises modified color data.
3. The system of claim 1 wherein the color corrected data comprises modified pattern data.
4. The system of claim 1 wherein the color-blind analyzer analyzes intermediate graphics data generated by the rendering engine.
5. The system of claim 4 wherein the intermediate graphics data's color characteristic is modified to a color characteristic suitable for a visually challenged viewer.
6. The system of claim 4 wherein the intermediate graphics data's pattern characteristic is modified to a pattern characteristic suitable for a visually challenged viewer.
7. The system of claim 6 wherein the intermediate graphics data is modified by overlaying a pattern on top of color characteristics problematic for a visually challenged viewer.

8. A system for generating a color corrected image, comprising:
  - a set-up processor to receive and parse geometric primitives and associated rendering commands;
  - a scan-convert processor to convert the geometric primitives to produce rasterized pixel data including color data for pixel locations in the image;
  - a memory area for storing the rasterized pixel data; and
  - a color-blind analyzer in communication with the memory area to analyze the rasterized pixel data stored in the memory area and modify selected rasterized pixel data into color corrected pixel data suitable for a visually challenged viewer.
9. The system of claim 8 further comprising:
  - a second memory area for storing the color corrected pixel data.
10. The system of claim 8 further comprising:
  - a graphics pixel engine for generating a color corrected image based upon the color corrected pixel data.
11. The system of claim 8 wherein the color corrected pixel data comprises modified pixel color data.
12. The system of claim 8 wherein the color corrected pixel data comprises modified pixel pattern data.
13. The system of claim 8 wherein the rasterized pixel data's color characteristic is adjusted to a color characteristic suitable for a visually challenged viewer.
14. The system of claim 8 wherein the rasterized pixel data's pattern characteristic is adjusted to a pattern characteristic suitable for a visually challenged viewer.
15. The system of claim 8 wherein the rasterized pixel data is adjusted by overlaying a pattern on top of color characteristics problematic for an abnormal color viewer.

16. A method for generating a color corrected image, comprising:  
receiving and parsing geometric primitives and associated rendering commands;  
generating graphics data based upon the geometric primitives and associated rendering commands;  
analyzing graphics data and modifying selected graphics data into color corrected data suitable for a visually challenged viewer; and  
rendering the color corrected data into a color corrected image for further processing and display.

17. The method of claim 16 wherein the color corrected data comprises modified color data.

18. The method of claim 16 wherein the color corrected data comprises modified pattern data.

19. The method of claim 16 wherein analyzing graphics data and converting selected graphics data into color corrected data suitable for a visually challenged viewer further comprises:

analyzing intermediate graphics data and converting selected intermediate graphics data into color corrected data suitable for a visually challenged viewer.

20. The method of claim 19 wherein analyzing intermediate graphics data and converting selected intermediate graphics data into color corrected data suitable for a visually challenged viewer further comprises:

modifying the intermediate graphics data's color characteristic to a color characteristic suitable for a visually challenged viewer.

21. The method of claim 19 wherein analyzing intermediate graphics data and converting selected intermediate graphics data into color corrected data suitable for a visually challenged viewer further comprises:

modifying the intermediate graphics data's pattern characteristic to a pattern characteristic suitable for a visually challenged viewer.

22. The method of claim 21 wherein modifying the intermediate graphics data's pattern characteristic to a pattern characteristic suitable for a visually challenged viewer further comprises:

modifying the intermediate graphics data by overlaying a pattern on top of color characteristics problematic for a visually challenged viewer.

23. A method for generating a color corrected image, comprising:  
receiving and parsing geometric primitives and associated rendering commands;  
scan converting the geometric primitives to produce rasterized pixel data including color data for pixel locations in the image;  
storing the rasterized pixel data in a first memory area; and  
analyzing the rasterized pixel data stored in the memory area and modifying selected rasterized pixel data into color corrected pixel data suitable for a visually challenged viewer.

24. The method of claim 23 further comprising:  
storing the color corrected pixel data in a second memory area.

25. The method of claim 23 further comprising:  
generating a color corrected image based upon the color corrected pixel data.

26. The method of claim 23 wherein the color corrected pixel data comprises modified pixel color data.

27. The method of claim 23 wherein the color corrected pixel data comprises modified pixel pattern data.

28. The method of claim 23 wherein analyzing the rasterized pixel data stored in the memory area and converting selected rasterized pixel data into color corrected pixel data suitable for a visually challenged viewer further comprises:  
adjusting the rasterized pixel data's color characteristic to a color characteristic suitable for a visually challenged viewer.

29. The method of claim 23 wherein analyzing the rasterized pixel data stored in the memory area and converting selected rasterized pixel data into color corrected pixel data suitable for a visually challenged viewer further comprises:

adjusting the rasterized pixel data's pattern to a pattern characteristic suitable for a visually challenged viewer.

30. The method of claim 29 wherein adjusting the rasterized pixel data's pattern to a pattern characteristic suitable for a visually challenged viewer further comprises:

adjusting the rasterized pixel data by overlaying a pattern on top of color characteristics problematic for an abnormal color viewer.

31. A method for providing graphics content visible to a color challenged user, comprising:

analyzing computer graphics content in accordance with predefined color profiles;

modifying graphics content that falls within at least one of the predefined color profiles such that the graphics content is visible to color challenged users; and

facilitating display of the modified graphics content.

32. A machine readable medium having stored therein a plurality of machine readable instructions executable by a processor to provide graphics content visible to a color challenged user, the machine readable instructions comprising:

instructions to analyze computer graphics content in accordance with predefined color profiles;

instructions to modify graphics content that falls within at least one of the predefined color profiles such that the graphics content is visible to color challenged users; and

instructions to facilitate display of the modified graphics content.

33. A machine readable medium having stored therein a plurality of machine readable instructions executable by a processor to generate a color corrected image, the machine readable instructions comprising:

instructions to render the color corrected data into a color corrected image for further processing and display.

38. The machine readable medium of claim 36 wherein instructions to analyze intermediate graphics data and convert selected intermediate graphics data into color corrected data suitable for a visually challenged viewer further comprises:

instructions to modify the intermediate graphics data's pattern characteristic to a pattern characteristic suitable for a visually challenged viewer.

39. The machine readable medium of claim 38 wherein instructions to modify the intermediate graphics data's pattern characteristic to a pattern characteristic suitable for a visually challenged viewer further comprises:

instructions to modify the intermediate graphics data by overlaying a pattern on top of color characteristics problematic for a visually challenged viewer.

40. A machine readable medium having stored therein a plurality of machine readable instructions executable by a processor to generate a color corrected image, machine readable instructions comprising:

instructions to receive and parse geometric primitives and associated rendering commands;

instructions to scan convert the geometric primitives to produce rasterized pixel data including color data for pixel locations in the image;

instructions to store the rasterized pixel data in a first memory area; and

instructions to analyze the rasterized pixel data stored in the memory area and modify selected rasterized pixel data into color corrected pixel data suitable for a visually challenged viewer.

41. The machine readable medium of claim 40 further comprising:

instructions to store the color corrected pixel data in a second memory area.

42. The machine readable medium of claim 40 further comprising:

instructions to generate a color corrected image based upon the color corrected pixel data.

43. The machine readable medium of claim 40 wherein the color corrected pixel data comprises modified pixel color data.

44. The machine readable medium of claim 40 wherein the color corrected pixel data comprises modified pixel pattern data.

45. The machine readable medium of claim 40 wherein instructions to analyze the rasterized pixel data stored in the memory area and convert selected rasterized pixel data into color corrected pixel data suitable for a visually challenged viewer further comprises:

instructions to adjust the rasterized pixel data's color characteristic to a color characteristic suitable for a visually challenged viewer.

46. The machine readable medium of claim 40 wherein instructions to analyze the rasterized pixel data stored in the memory area and convert selected rasterized pixel data into color corrected pixel data suitable for a visually challenged viewer further comprises:

instructions to adjust the rasterized pixel data's pattern to a pattern characteristic suitable for a visually challenged viewer.

47. The machine readable medium of claim 46 wherein instructions to adjust the rasterized pixel data's pattern to a pattern characteristic suitable for a visually challenged viewer further comprises:

instructions to adjust the rasterized pixel data by overlaying a pattern on top of color characteristics problematic for an abnormal color viewer.